

MARSHALL STAR

Marshall Space Flight Center

March 11, 1999

'We bring people to space — We bring space to people'

Center representatives take space to area school children

A lmost 100 classes of Huntsville-area school children are learning about the space program this week during classroom visits by representatives of the Marshall Center.

To mark Alabama Aerospace Week, March 6-12, the Marshall Center representatives are taking props, models, slide shows and demonstrations to the classroom.

Students will learn about rocketry and witness a demonstration on rocket building. A visitor in a "space suit" will show students genuine Moon rocks. Other classes will learn about living in space, the ABCs of space flight, and the role of Wernher von Braun, Marshall Center's first director, in space exploration.

The Marshall Center representatives are visiting Huntsville City Schools, Madison County Schools and schools in the surrounding counties, speaking to almost 7,500 students.



Photo by Doug Stoffer

Students from University Place school in Huntsville are among the hundreds of students from North Alabama this week learning about space from Marshall representatives.



Courtesy photo

Thiokol cited for 'Contractor Excellence'

Thiokol Propulsion of Utah was a recent recipient of Marshall's 1998 Contractor Excellence Award. From left are Alex McCool, manager of Marshall's Space Shuttle Projects Office; Gerald Smith, vice president and general manager, Thiokol Space Operations; Marshall Center Director Art Stephenson; Keith Henson, manager, Reusable Solid Rocket Motor (RSRM) Project; Bob Crippen, president, Thiokol Propulsion; and George Alford, vice president and Thiokol RSRM program manager.

NASA, Lockheed Martin dedicate X-33 Flight Operations Center

by Tony Jacob

ASA and Lockheed Martin's X-33 Advance Technology Demonstrator reached a major milestone Friday as its Flight Operations Center was dedicated at Edwards Air Force Base, Calif. The X-33 program is managed by Marshall.

NASA and Lockheed Martin officials accepted the facility from industry team member Sverdrup Corp., St. Louis. The 30-acre center, from which the X-33 will launch, is located 40 miles northeast of Lockheed Martin Skunk Works, Palmdale, Calif., where the X-33 is currently being assembled. Sverdrup designed and constructed the \$32 million flight operations center in record time — just over 12 months — and under budget.

The unique facility was built as a small-scale version of a future "spaceport," and is dramatically different from present

See **X-33** on page 4

"Go ahead ... safe my day"

— Safety slogan submitted by Mark Boudreaux, MG01

Service is key element for new engineering directorate

by Mike Wright

Editor's Note: The following article, focusing on plans for the Marshall Center's new Engineering Directorate, is the first in a series of articles the Marshall Star is publishing to provide readers with more information on the reorganization announced Jan. 29 by Center Director Art Stephenson.

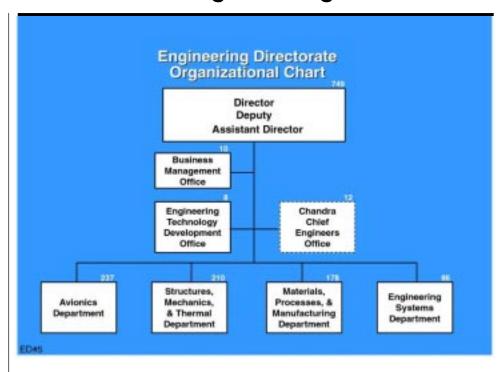
arshall's Jim Kennedy sums up the role assigned to the new Engineering Directorate at the Marshall Center with a single phrase: providing engineering services to the Center.

Kennedy is leading a 21-member planning team responsible for forming the new directorate from elements of the current Science and Engineering Directorate. "These team members have literally devoted a month of their lives, including weekends and holidays, to this project," he said. In addition, the team has received input from across the Center. "The team really includes hundreds of you," Kennedy said, referring to more than 100 e-mails sent to his team offering suggestions and solutions.

Plans call for the Engineering Directorate to include 749 people. Beyond the first level of directorate management, the organization will include a Business Management Office and an Engineering Technology Development Office. The organizational chart also shows dotted lines to the Chandra Chief Engineer's Office. "They will remain intact for now in order not to hinder the Chandra activity which is scheduled for a July launch," Kennedy said.

As part of the reorganization, "laboratories" will be called "departments" and "divisions" will be called "groups." The Engineering Directorate will include four departments: Avionics; Structures, Mechanics, and Thermal; Materials, Processes, and Manufacturing; and Engineering Systems. Each department will also include a business office. "We believe that our ability to be strong technically is very much a function of our ability to develop and maintain a strong business office," Kennedy said.

The planning process for the Engineering Directorate included breaking down



the current Science and Engineering Directorate into 160 functional elements. "A functional element was defined as a group of people who have like technical skills," Kennedy said.

The focus, "per Art's direction," said Kennedy, was to identify functions that were "cross-cutting." For example, cross-cutting functions like stress analysis were selected for the Engineering Directorate. Other functions were "hard-wired" to the Center's product lines. The team's analysis showed that 48 percent of the functions were cross-cutting. The remaining 52 percent were primarily dedicated to the Center's product lines.

There were "shades of gray," in the planning process, Kennedy said. For example, some functions may allocate 85 percent of their resources to a single product line. But the remaining 15 percent may be required for use by other product lines.

The Systems Test activity was one of the "shades of gray," said Kennedy. "Eighty-five percent of those folks support the Microgravity Development Laboratory." As part of the reorganization, the remaining 15 percent will be available "for purchase" by other directorates that require the same service. In this case, "the product lines will be service providers as well," he said.

Kennedy sees service as a key element in the Engineering Directorate. "I'm proud to say that Science and Engineering, soon to be the Engineering Directorate, is a service provider. Service does not at all imply you are subordinated to that customer. Art expects the Engineering Directorate to be actively involved in every program at this Center. The level of penetration will vary from program to program. But we will have the Engineering Directorate involved in every program at the Center," Kennedy said.

"I think the reorganization is consistent with the Center's values, one of which is that we value our people," Kennedy said. In addition, the Engineering Directorate will focus on accountability. "We are stressing accountability," he said.

Kennedy borrowed a quote from Stephenson regarding the reorganization. "It gives you more doers and less viewers. That's how you get more with less." But Kennedy believes that success for the new directorate will hinge on developing more streamlined processes. One important process, he says, involves establishing "dual career paths" for engineers. This

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Photo by Terry Leibold

Debbie Springer of The Boeing Co. receives a certificate of appreciation from Marshall Center Deputy Director Carolyn Griner. Springer was cited for her comprehensive briefings and tours provided to Marshall guests visiting the International Space Station mockups and manufacturing facilities.

Width requirement explained for corridors and passageways

by Judy Milburn

"Center Clean-Up Initiative" letter was distributed to division-level supervisors June 17, 1998, regarding corridors and passageways at the Marshall Center. Employees have asked the Industrial Safety Office to clarify the width requirement for main corridors and passageways.

Main corridors and passageways must provide exit access for more than six people. The Life Safety Code requires the minimum width of a main corridor to be 44 inches in a business occupancy. Marshall' policy requires that employees keep corridors free of furniture and other physical objects to ensure a safe exit path even if the minimum width meets or exceeds 44 inches.

Exceptions:

- 1) Furniture in lobby areas specifically designed for such purposes.
- 2) Vending machines and other equipment in recessed areas specifically designed for such purposes.
- 3) Water fountains and fire extinguishers. For more information, call the Industrial Safety Office at 544-0046.

The writer works in Marshall's Industrial Safety Office.

Marshall Aircraft Operations moves to Huntsville airport

by John Bryk

A ircraft operations for the Marshall Center at Redstone Arsenal Airfield have been moved to the Huntsville International Airport,.

Marshall has operated and maintained a 12-seat Gulfstream G-1 turbo-prop aircraft — called NASA-3 — at the Redstone Airfield since 1962 to transport government employees on official travel orders.

The move from Redstone Airfield March 1 was a result of a partnership agreement with NASA, the city of Huntsville and the airport. "By NASA aggressively pursuing a business agreement with local industry, we are helping Huntsville and Huntsville is helping NASA," said Roy Malone, director of logistics services at Marshall. "We're adding even more layers of security and safety to our passenger operations by using the Huntsville airport's existing services and facilities," said Malone.

Operations at the Huntsville airport will provide longer runways, fire protection, precision instrument approach backup systems and on-site weather information. The consolidation of support services and the move to a new hangar facility, built by Signature Flight Support and leased to NASA, will reduce overall costs.

Free parking for all NASA-3 passengers is provided at Signature. A parking map is located on "Inside Marshall" under the travel/transportation button.

The writer, a contractor employed by ASRI, supports the Media Relations Office at Marshall.



So that's how you get a paycheck

Photo by Doug Stoffer

High school students from Decatur Heritage Christian Academy observe while Beth Allison, a financial program specialist in Marshall's payroll office, shows how the NASA Payroll Processing System works. During their visit, the students also received an overview of the Center's current operations, future goals and history.

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★ ★ ★ Marshall Stars ★ ★ ★



Ron Schlagheck

Ronald Schlagheck, former manager of microgravity science and commercial payloads of the Shuttle/ Mir flight program, has been named to lead the Materials Science Projects Office of the Microgravity Research Program.

Schlagheck, who joined the Marshall Center in 1968, has also worked with the Orbital Verification

Team of the Hubble Space Telescope project office, the Spacelab Payload Crew Training Complex in Mission Operations Laboratory and the Payload Projects Office.



DeLisa Wilkerson

DeLisa Wilkerson, electronics engineer with Marshall's Flight Data Systems Branch, is a member of the American Institute of Aeronautics and Astronautics (AIAA) Digital Avionics Technical Committee (DATC). She will co-chair the AIAA DATC Publications subcommittee for the 18th Digital Avionics Systems conference Oct. 23-29 in St. Louis, Mo. Wilkerson is also the writer-editor for the DATC bi-annual newsletter, "Digital Avionics Today."

"Marshall Stars" is an occasional feature in the Marshall Star recognizing Marshall Center employees and contractors who have made significant contributions to NASA and the Marshall Center by taking significant strides in leadership and dedication to their professional and/or educational development.

Employees and contractors may nominate themselves or another employee. Submit your nominations for consideration to Debra Valine, CO40, or call 544-0030.

Center contractors eligible for Chamber business award

Marshall Center contractors are eligible for the Huntsville/ Madison County Chamber of Commerce "Catch a Rising Star Award" honoring outstanding business achievements by an individual or company.

Entrants will be judged on community involvement, innovative product and service, financial growth, years in business, employment growth and response to adversity. Nomination deadline is March 22. Contact: Rosa Kilpatrick, Bldg. 4200, room 828, 4-0042.

Partnership to pave way for space observatories

by John Bryk

The Marshall Center and the U.S. Department of Commerce's National Institute of Standards and Technology in Gaithersburg, Md., will team to improve NASA's ability to make critical measurements needed for the next generation of orbiting observatories. At the same time the effort will establish a national resource for traceable high-accuracy measurements of large optics.

As part of a recently signed memorandum of understanding, Marshall will work with NIST's Manufacturing Engineering Laboratory to develop the standards and test procedures for the dimensional measurement of large diameter optics (greater than 0.4 meters, or about 1.3 feet, in diameter) that meet the needs of U.S. industry and the government for traceable dimensional measurements.

"There presently is no national or international standard for optical mirrors over 0.4 meters in diameter," said James Bilbro, Marshall Center's special assistant for optics. "Our work with NIST is primarily driven by our need to develop and maintain the technology necessary to manufacture and characterize high quality large, ultra-lightweight optics at a low cost for future large high-precision NASA space telescopes," he said.

Bilbro pointed out that the effort stands to benefit not just NASA, but also the Department of Defense and the nation as a

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X-33 —

Continued from page 1

launch sites. "We've created a flight center that supports the program philosophy of building a reusable launch vehicle that operates more like an airplane," said Gene Austin, NASA X-33 program manager. "The center is designed to allow us to service and launch the X-33 all from one spot, with a ground crew of fewer than 50 people.

"The facility will support our goal of demonstrating aircraft-like turnaround times," Austin said. "We plan two seven-day turnarounds and one two-day turnaround during our X-33 flight tests, which begin next year."

The X-33 is a half-scale, suborbital technology demonstrator of a reusable launch vehicle Lockheed Martin calls the "VentureStar™." The \$1.2 billion program is demonstrating advanced technologies that will dramatically increase launch vehicle reliability and lower the cost of putting a pound of payload into space from \$10,000 to \$1,000.

The X-33 is scheduled to conduct flight tests beginning in mid-2000. It eventually will fly faster than 13 times the speed of sound and at an altitude of 60 miles to prove its technologies and systems.

The writer, a contractor for ASRI, supports the Media Relations Office.

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Upcoming Events

Annual retiree dinner set for March 23

Marshall's annual dinner honoring Marshall Center retirees will be held Tuesday, March 23 at the Von Braun Center. A social will begin at 6 p.m., followed by dinner at 7, and entertainment at 8.

Entertainment, by Marshall Center managers, employees and on-site contractors, will feature "The Beach Boys," "A Chorus Line," "Mr. Big Stuff" singers, "Grease" dancers and "The Temptations." Ticket cost is \$15, and may be purchased from administrative officers until noon March 18.

Griner to be honored by Girls Inc.

Marshall Center Deputy Director Carolyn Griner will be honored at noon Thursday, March 18, at the Marriott Hotel during a luncheon hosted by Girls Incorporated of Huntsville. Griner will receive the "She Knows Where She's Going Award." The award honors women of achievement who, in their personal and professional lives, serve as role models to girls. Ticket cost is \$25 and may be purchased by calling 851-9911.

National Forum on Future Development of Space set March 16 in Washington

The Marshall Center has teamed with NASA Headquarters and the U.S. Chamber of Commerce to hold a one-day forum on space development at the Chamber Headquarters in Washington, D.C., March 16. NASA Administrator Dan Goldin will speak. More information and registration materials may be found at the following Website: http://www.uschamber.org/intl/space/

Volunteers needed for Easter Egg Hunt

Volunteers are needed to help with the annual NASA Exchange-sponsored Easter Egg Hunt scheduled for 2 p.m. March 21. Children of Marshall employees and on-site contractors may participate. Contact Gena Marsh at 544-0128, or Donna Mahieux at 544-7511.

Advanced Propulsion Workshop April 5-8

The 1999 NASA/American Institute of Aeronautics and Astronautics Advanced Propulsion Workshop will be held April 5-8 at the Tom Bevill Center, Sparkman Drive, Huntsville. Marshall Center Director Art Stephenson will speak. Registration will be paid for Marshall employees who have registered. Anyone interested in presenting an Advanced Propulsion concept-related topic should e-mail an abstract to Dr. Stephanie Leifer, technical chairperson, at: sleifer@mail1.jpl.nasa.gov

For more information, contact Dr. Chris Barret, general chairperson, at 544-7118, or e-mail to: Chris.Barret@msfc.nasa.gov

Civil service employees asked to complete safety survey

Time is running out for Marshall Center civil service employees to complete the Safety Performance Evaluation Profile (PEP). The PEP is a survey required annually by NASA Headquarters of all NASA Centers to assess progress on the Agency Safety Initiative. The deadline to complete the survey is April 1.

This survey focuses on four core process requirements: Management Commitment and Employee Involvement, System and Worksite Hazard Analysis, Hazard Prevention and Control and Safety and Health Training.

You can access the survey electronically through the "Inside Marshall" Website. Go to the Safety Web page and click on the "Performance Evaluation Profile" link. The level of participation of each Marshall organization will be tallied weekly until the survey closes April 1. See your supervisor for a number that identifies your organization.

Reorganization

Continued from page 2 process would provide opportunities for "top-notch" people with technical skills to receive promotions and still remain in a technical field instead of moving into management.

Kennedy is one of five organizational development team leaders assigned by Stephenson to plan the reorganization. Others include Rick Bachtel, Space Transportation Directorate; Axel Roth, Flight Projects Directorate; Jack Bullman, Science Directorate, and Bill Kilpatrick, Systems Management Office. On March 1, each team leader presented the status of his assigned portion of the reorganization. Briefing charts are posted on the "Inside Marshall" home page.

The writer works in the Internal Relations and Communications Office.



Photo by Doug Stoffer

Delta IV transmitter passes test

Paul Kennedy, team leader for the radio frequency design and analysis team in Marshall's Astrionics Laboratory, completes Delta IV telemetry system transmitter testing. The transmitter was used to perform an end-to-end test through NASA's Tracking and Data Relay Satellite System. The testing was done as part of a Space Act agreement with The Boeing Co.

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Faces at Marshall

Reception desk clerks greet, badge Marshall visitors

by Debra Valine

If you come in the front doors of Bldg. 4200, chances are you will see her or one of her co-workers. These women greet you with a smile and help you get your Marshall business conducted.

Joyce Tomlin, an identification and registration clerk with Steinhoff and Sadler Inc., greets visitors to the Marshall Center and processes requests for temporary badges. She is one of nine women who work rotating shifts at the front desks of two Marshall buildings. Tomlin works half a day in Bldg. 4200 and the other half in Bldg. 4312. Other clerks at the front desk include Dana Tidwell, Dawn Birdwell, Janett Beasley, Tammy Paseur, Joyce Adams, Trudy Allen, Trisha Gray and Sonia Kitchens.

"I greet people as they come in the door and make temporary badges or give directions to different offices," Tomlin said. "They sign in and provide the name of the person they will see, the company they represent, and how long they will be here. Then I need a picture ID. We also

"I saw John Glenn when he came here; he was just so nice. And one time John Denver, the singer, came in and stood right in front of my desk."

—Joyce Tomlin



Photo by Dennis Olive

Joyce Tomlin assists Lee Jankowski of Teledyne Brown Engineering.

make badges in advance and both temporary and permanent parking decals."

The only difference in the duties between the two buildings is that in Bldg. 4312 she makes permanent picture badges.

Tomlin, originally from Monroe, Ga., has been at Marshall for the past 12 years, under various contractors. She moved to Huntsville 20 years ago when her husband, John, transferred here. He worked sales for Olivetti-Underwood at that time and is now retired. They have two children who are grown and married and one granddaughter. They all live in Huntsville.

"In the 12 years on the job, I have seen many people come in the door – some of them famous," said Tomlin, who says she gets excited every time she sees an astronaut.

"I saw John Glenn when he came here; he was just so nice. And one time John Denver, the singer, came in and stood right in front of my desk. He was here for the Von Braun Exploration Forum. He was very interested in the space program and the environment. We also have a lot of foreign nationals come in."

The writer, a contractor employed by ASRI, is the Marshall Star editor.

Partnership

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whole. "This type of measurement technology will help U.S. industry compete in the world marketplace. By using certified standards, manufacturers can ultimately reduce the cost of the end product."

"We are delighted that NIST is partnering with NASA in the development and implementation of this measurement capability that will enable the space agency to build and fly advanced space observatories on a scale greatly expanded beyond that of the Hubble Space Telescope," said Ted Vorburger, group leader in the Precision Engineering Division of NIST's Manufacturing Engineering Laboratory.

The Marshall Center has had extensive experience in the

development of large optics for telescopes over the last 30 years, including the Apollo Telescope Mount, the High-Energy Astrophysics Observatory series, and the Hubble Space Telescope. Most recently, the Center directed the design and construction of the Chandra X-ray Observatory, scheduled for launch this year. The Center has responsibility for space optics manufacturing technology for NASA and is currently working on developing technologies for even larger, more powerful space telescopes. These include the Next Generation Space Telescope and the Constellation X-ray Mission, both currently under study by NASA's Goddard Space Flight Center, Md.

The writer, a contractor employed by ASRI, supports the Media Relations Office at Marshall.

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New service enhances communications process

by Mike Wright

Sometimes getting your message out to your intended audience can be frustrating. If you find that's true for you, just use INTERCOM.

INTERCOM is a package of services designed to help you communicate with the Marshall Team. These services include the "Marshall Star," the "Daily Planet," "Inside Marshall," MSFC Activity Notice, Outdoor Electronic Messaging, and, coming soon, Employee Television.

It's easy to use. Simply provide the Internal Relations and Communication Office with the Marshall-related messages that you want to communicate to employees. If you're not sure about the best way to prepare or disseminate the information, we're here to help. We'll help prepare the information and select one or more of the communication services available.

The "Marshall Star" is published every Thursday. It serves as the Center's weekly newspaper and includes in-depth articles, features and photographs, as well as reports on upcoming Marshall-related events. The deadline for submissions each week is Monday.

1998 MARS Coed Volleyball Winners



Division 1 winners: Kaos Back row, from left, Bill Witherow, Bridget Dietz, Dave Hathaway, Kurt Dietz and John Busbey. Front row, from left, Karen Oliver, Dennis Gallagher and Sarah Gallager.



Division 2 winners: Gravediggers
Front row, from left, Heather Elliott, Lori Manis, Dorinna Thom
and Kim Muery. Back row, from left, Darren Reed, Rick Manis,
Robert Thom, Jeff Mullins and David Muery. Todd Mullins is not
pictured.

The "Daily Planet" is published every workday morning and posted throughout the Center. The "Daily Planet" is an efficient way to get your message out to employees.

"Inside Marshall" is the Center's key Web-based intranet source for news, information and announcements about what's going on at the Center.

If you need to get an important message

Introducing
Intercom@msfc.nasa.gov

National Aeronautics and Space Flight Center
Marshall Space Flight Center

or announcement to employees in a matter of minutes, we can activate an MSFC Activity Notice that will go to every e-mail address at Marshall.

Marshall has two outdoor electronic messaging boards. One is on Rideout Road approaching Bldg. 4200. The other is at the intersection of Rideout and Martin roads.

In the future, look for Employee Television, or ETV, as a means of for getting your message out.

For any or all of these services, e-mail intercom@msfc.nasa.gov or call the Internal Relations and Communications Office at 544-0030.

The writer works in the Internal Relations and Communications
Office

Smith to speak at Chamber

Dennis Smith, planning and operations and office manager for Marshall's Space Transportation Office, will take part in a series of meetings for Huntsville/Madison County Chamber of Commerce members interested in learning more about what the Army and NASA are doing. Smith will talk about "Our Nation's Future Space Transportation Vehicles," and premier a new CD-ROM, "Space Transportation: Past, Present and Future" Friday, March 12, at 11 a.m. at the Chamber of Commerce auditorium in Huntsville.

Field center gets name change

NASA Administrator Daniel S. Goldin has officially changed the name of the Lewis Research Center, Cleveland, Ohio, to the John H. Glenn Research Center at Lewis Field.

U.S. Sen. Mike DeWine proposed the name change in the FY 1999 VA-HUD Appropriations Bill last October in recognition of Glenn's contributions to science and space, and to the State of Ohio.

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Employee Ads

Miscellaneous

- ★ Sofa, loveseat; chair/gray; oak finished end tables; sofa & cocktail tables; entertainment center; \$800. 882-9591
- ★ Adobe Photoshop, full up version 5.0 for Windows, new, unopened box, \$500. 881-2351
- ★ Two 45,000 BTU butane heaters, \$50 each. 232-4610
- ★ Rockwood III wood burning stove insert with circulation fan, \$150 obo. 883-8989
- ★ Irion car stereo amp, HCCA225 model. 922-5727
- ★ Burgundy leather sofa, \$700. 881-5020
- ★ 17' Ranger, 115 horsepower Evenrude motor, trolling motor, trim tilt graphs, \$3,199. 534-3447
- ★ Skilsaw table saw, 10" w/stand and fence, \$85. 883-4343
- ★ 1987 Hunter 23" sailboat with trailer, \$3,500. 498-5575
- ★ Linux Red Hat 5.2, \$20; Chessmaster 5000, \$15; tower case, \$25. 233-5247
- ★ Pulman, predominant color blue, 82" long, \$100. 883-5543
- ★ Baby crib, white, no mattress. \$35
- ★ Solid oak roll-top computer desk, \$750. 851-0871
- ★ Conn student trombone, model 18H, 1-1/2 years old, \$450. 830-4846
- ★ Kenwood TS-440SAT amateur radio, PC ready, 270Hz CW filter, power supply, hand microphone, \$650. 881-0533

Vehicles

- ★ 1997 Tahoe, 4x4, Vortec engine, 4 door, all extras, cherry ice, 42 K miles, \$25,900. 350-3414
- ★ 1991 Honda Civic, 4-door, approx. 117K miles, \$4,800. 828-2462
- ★ 1996 Pontiac Transport, 7/8 passenger, cruise, PDL/PW, \$10,500 obo. 564-6225
- ★ 1985 Jaguar, XJ6, Vanden Plas, 123K miles, \$2,200. 730-8070
- ★ 1997 Plymouth Grand Voyager SE, 28K miles, 1 sliding door, quad seats, V6, CD, dual air, all power, \$19,500. 882-5506

- ★ 1994 Nissan Quest GXE, 97K miles, power windows/seats/sunroof, alloy wheels, new tires, \$13,295. 773-4461
- ★ 1995 Monterey Cobra, Class A motorhome, 7500 miles, sleeps 4-6, \$31,900. 539-2051
- **★**1995 Firebird, silver, 350 motor, 6-speed, 72K miles, \$12,900. 232-4305
- ★1991 Honda Civic CRX-Sig, 105,600 miles, CD, power sun-roof, A/C, \$5,800 obo. 882-6861
- ★1991 Chrysler New Yorker Fifth Avenue, V6, automatic, all power, less than 55K miles, \$5,000. 852-6334
- ★1987 BMW 325, burgundy, 4-door, ABS, 2 sets wheels, CD changer, 132K miles, \$5,600. 533-7349
- ★1989 Dodge Ram custom van, TV, VCR, new tires, luxury interior, 125K miles, \$5,000. 955-2239

Wanted

- ★ Heavy duty electric kitchen mixer with dough hook, paddle wisk. 883-2918
- ★ Extension ladder, 30-40 feet long. 882-6446

Center Announcements

- Blue Cross/Blue Shield The Federal representative from Blue Cross/Blue Shield will be at Marshall Tuesday, March 16 from 9-11 a.m. in Bldg. 4200, room 324 to assist employees with claims and questions.
- Rowing Club The Rocket City Rowing Club will be hosting its annual adult rowing clinic for beginners on April 10, 17, 24 and May 1. Learn basic rowing techniques, along with equipment and lingo. Contact Halley Little at 544-5993.
- ► NARFE The National Association of Retired Federal Employees (NARFE) will meet Saturday, March 13 at the Senior Center on Drake Avenue. Refreshments will be served at 9:30 a.m. followed by a program on "Slams and Scams" at 10. For more information call 837-0382 or 881-3168.
- Skeet Club The MARS Skeet Club league will begin April 7 and the trap league on April 8. Anyone interested in learning to shoot or improve shooting skills should contact Matt Bucca at 882-9798

- about the skeet league and Henry Stinson at 544-7077 about the trap league or be at the range at 3:30 p.m. on April 7 and/or 8.
- ★ American Express Travel American Express Travel office at Marshall will close 40 minutes early Thursday, March 18. Emergency travel situations should be referred to 1-800-242-4006. Regular office hours, 7:30 a.m.-4:30 p.m. will resume on March 19.
- ✓ United Negro College Fund

 The 21st

 Annual United Negro College Fund banquet
 will be held Thursday, April 1 at the Von

 Braun Center North Hall. Ticket cost is \$40
 for general admission and \$25 for students.

 Contact Willie Love at 544-0088 for
 tickets.

Job Opportunities

CPP 99-27-CL, Management Support Assistant (OA), GS-303-7, Space Transportation Programs Office. Closes March 19.

Reassignment Bulletin 99-2-RE, AST, Reliability & Quality Assurance, GS-861-13, Safety and Mission Assurance Office, Shuttle Integration Office. Duty location: Kennedy Space Center, Fla. Closes March 22

Reassignment Bulletin 99-3-RE, AST, Reliability & Quality Assurance, GS-861-12/13, Safety and Mission Assurance Office, Space Station Assurance Office. Duty location: Marshall Center. Closes March 22.

Reassignment Bulletin 99-4-RE, AST, Reliability & Quality Assurance, GS-861-12/13, Safety and Mission Assurance Office, SSME Assurance Office. Duty location: West Palm Beach, Fla. Closes March 22.

Reassignment Bulletin 99-5-RE, AST, Reliability & Quality Assurance, GS-861-12/13, Safety and Mission Assurance Office, RSRM Assurance Office. Duty location: Brigham City, Utah. Closes March 22. Reassignment Bulletin 99-7-RE, AST, Reliability & Quality Assurance, GS-861-13, Safety and Mission Assurance Office, Observatory Assurance Office. Duty location: Canoga Park, Calif. Closes March 22. CPP 99-24-CP, Supervisory Budget Analyst, GS-560-15, Office of the Chief Financial Officer, Institutional/Integration Office. Closes March 16. CPP 99-23-JB, Contract Specialist, GS-1102-13, Procurement Office. Closes March 23. CPP 99-26-CL, AST, Technical Management, GS-801-13, Customer and Employee Relations Directorate, Technology Transfer Office. Closes March 23.

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Director of Internal Relations and Communications — Norman Brown Managing Editor — Angela D. Storey http://www.msfc.nasa.gov

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